

**Abstract**

Gas flow control is addressed using a controllable approach that facilitates safe operation. According to an example embodiment, a control arrangement for gas flow  
5 comprises two main valves connected in series and two servo valves operated by an actuator, the opening of the main valves being controlled via said servo valves. The main valves are operated by means of diaphragms limiting a first gas chamber, wherein the first servo valve is connected to the first gas chamber of the first main valve, to a second gas chamber in the inlet area of the first main valve and to the first gas chamber  
10 of the second main valve. Due to this construction a leakage gas flow out of the first gas chamber of the first main valve leads, if the first servo valve fails, to an increase in pressure in the first gas chamber of the second main valve, whereby it is ensured that the main valve is safely closed.